

Amendment and Response

Applicant: Gopalan Raman

Serial No.: 09/698,644

Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

REMARKS

This Amendment is responsive to the Non-Final Office Action mailed August 14, 2003, in which claims 1-5 and 10-17 were rejected. Claims 6-9 have been withdrawn from the application as being directed to a non-elected invention. With this Amendment, claims 1, 3, 10, 11, 14 and 15 have been amended, claim 4 has been cancelled, and new claims 18-20 are presented. Claims 1-5 and 10-20 are pending in the application and are presented for reconsideration and allowance.

Claim Objections

Claims 4 and 14 have been objected to because of an informality. Specifically, claim 4 recites the limitation "the overlayer" in line 2, and claim 14 recites this limitation in line 3. The Examiner finds that there is insufficient antecedent basis for the limitation in the claims.

Claim 4 has been cancelled from the application. Claim 14 has been amended to change "the overlayer" to --the secure image--, and thereby provide proper antecedent basis in the claim.

Applicants believe the above-noted amendments to the claims correct the informality, and withdrawal of the objection to the claims is respectfully requested.

Claim Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1-3, 5, 10, and 12-17 under 35 U.S.C. §103(a) as being unpatentable over Daigneault (U.S. Patent No. 6,334,678) in view of Mehta (U.S. Patent No. 5,944,881). The Examiner has also rejected claims 4, 11, and 14 under 35 U.S.C. §103(a) as being unpatentable over Daigneault in view of Mehta as applied to claims 1-3, 5, 10 and 12-17 above, and further in view of Silverbrook (U.S. Patent No. 6,431,704).

With respect to claims 1, 2, 10, and 13-15, Daigneault is said to teach a method for printing a secure image on media using an inkjet printing device. The method is said to comprise printing an underlayer 4 using an inkjet printing device where the underlayer defines an identification indicia, the underlayer being a watermark. The Examiner states that watermarks are preprinted images that inherently receive a subsequent printed image that goes on top of the watermark when the media is printed by the end user. Daigneault is

Amendment and Response

Applicant: Gopalan Raman

Serial No.: 09/698,644

Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

further said to teach that the underlayer can be printed from a group of various colors (Column 6, Lines 51-53) that are independent of an ink color of the image to be printed by the end-user. Daigneault is further said to teach a storage device 28 for storing information specifying the underlayer, a control device 14 for selecting image information from the storage device to the underlayer, an input device, and an underlayer wherein examination of a front surface allows viewing of the identification indicia for authenticating the secure image.

Daigneault is acknowledged as not teaching the underlayer penetrating into a front surface of the media, the secure image completely covering the underlayer, the inkjet printing device for printing the underlayer being the same inkjet printing device for printing the overlayer, the underlayer being printed using one of magenta and cyan ink, the information from the input device being used for printing the overlayer, the underlayer being formed from a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light, and examination of a back surface opposite the front surface allowing viewing of the identification indicia authenticating the secure image.

Mehta is cited by the Examiner as overcoming the deficiencies of Daigneault. Specifically, with respect to claims 1, 5, 10, 12 and 13-17, Mehta is said to teach an underlayer penetrating into a front surface of the media, the underlayer being printed using one of magenta and cyan ink (Column 2, Lines 8-10), the underlayer being formed from a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light (Column 4, Lines 32-39), where examination of the back surface opposite the front surface allows viewing of the identification indicia for authenticating the secure image (Column 2, Line 30-34). The Examiner finds it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document by exposure to ultraviolet light as taught by Mehta (Column 1, Lines 63-65).

With respect to claim 3, Daigneault is said to teach an underlayer in the form of background watermarks that are formed into designs such as company's logos. The Examiner states that watermarks are preprinted background images that are subsequently printed on top of by the end-user. The Examiner thus finds that it would have been obvious

Amendment and Response

Applicant: Gopalan Raman

Serial No.: 09/698,644

Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

to subsequently print an image that completely covers the underlayer, in order to efficiently utilize printing media resources by printing on the entire sheet of paper.

With respect to claims 4, 11 and 14, Daigneault in view of Mehta is said to teach the claimed invention except for the inkjet printing device for printing the underlayer being the same inkjet device for printing the overlayer, and information from the input device being used for printing the overlayer.

Silverbrook is cited as teaching that inkjet printing devices can be used to print images that appear in the foreground of media, and information from an input device 24 being selected for printing the images. The Examiner finds that it would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the inkjet printing device of Daigneault be used to print the overlaying images, in order to save to time and money using only one device to print the underlayer and the overlayer.

Amended independent claim 1 claims a method for printing a secure image on media using an inkjet printing device. The method comprises printing an underlayer using an inkjet printing device that penetrates into a front surface of the media. The underlayer defines an identification indicia. The method further comprises printing a secure image on top of the underlayer using the inkjet printing device, wherein examination of a back surface opposite the front surface allows viewing of the identification indicia for authenticating the secure image.

As amended, independent claim 1 incorporates the limitation of claim 4, which specifies the inkjet printing device for printing the underlayer is the same inkjet printing device for the printing the overlayer. That is, amended independent claim 1 specifies “printing an underlayer using an inkjet printing device” and “printing a secure image on top of the underlayer using the inkjet printing device”. Despite the Examiner’s contention, one skilled in the art would not modify Daigneault in view of both Mehta and Silverbrook to arrive at the invention of amended independent claim 1, because **there is no basis in the art for making the suggested combination**. The cited references disclose printing only an underlayer (Daigneault and Mehta), or only an overlayer (Silverbrook). None of the cited references show, teach or suggest in any manner that the same printing system or device may be used to print an underlayer defining an identification indicia and a secure image (e.g., an

Amendment and Response

Applicant: Gopalan Raman

Serial No.: 09/698,644

Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

overlayer) on top of the underlayer. No need for or benefit of such printing is recognized in the prior art. Absent a teaching or suggestion to combine the references, the combination of the references is improper, and can only be arrived at in hindsight using the teachings of the present application. For at least this reason, the subject matter of amended independent claim 1 is not obvious, and withdrawal of the rejection of amended independent claim 1 under 35 U.S.C. §103(a) is respectfully requested.

Dependent claim 3 has been amended to clarify that the identifying indicia is related to the secure image, and wherein the secure image completely covers the underlayer. **None of the cited references disclose that the identifying indicia of the underlayer is in any way related to the secure image printed on top of the underlayer.** Rather, the underlayers taught by Daigneault and Mehta are independent from and unrelated to the image be printed later on top of the underlayer. Accordingly, withdrawal of the rejection of amended claim 3 is respectfully requested.

Claims 2-5 depend from amended independent claim 1, which is in allowable condition for the reasons discussed above. Accordingly, dependent claims 2-5 are also in allowable condition, and withdrawal of the rejection of claims 2-5 under 35 U.S.C. §103(a) is respectfully requested.

Amended independent claim 6 claims a method for identifying a source of an inkjet printed image. The method comprises printing an underlayer on a front side of print media using an inkjet printing device, the underlayer having a characteristic indicia of the inkjet printing device. The method further comprises printing a secure image over the underlayer wherein the source of the printed secure image is determined by the examination of a back side opposite the front side to reveal a mirror image of the underlayer for identifying the characteristic indicia.

None of the cited references show, teach or suggest the underlayer having a characteristic indicia of the inkjet printing device. To the contrary, Daigneault teaches that the desired watermarked pattern or image is stored in the memory of the host computer 28. The microprocessor 14 of the printer then controls the printhead 6 in accordance with printing instructions transmitted by the host computer 28. Thus, the watermark of Daigneault **cannot** be characteristic of the inkjet printing device, as the watermark is independent of the

Amendment and Response

Applicant: Gopalan Raman

Serial No.: 09/698,644

Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

printing device. Accordingly, withdrawal of the rejection of amended independent claim 10 under 35 U.S.C. §103(a) is respectfully requested.

Dependent claims 11-14 depend from amended independent claim 10 and are therefore also in condition for allowance. Dependent claims 11 and 14 have been amended to provide proper antecedent basis in the claims, and to conform to the language of amended independent claim 10. Withdrawal of the rejection of dependent claims 11-14 under 35 U.S.C. §103(a) is respectfully requested.

Amended independent claim 15 contains limitations similar to those presented in amended independent claim 1. Specifically, printing a secure image on top of the underlayer is accomplished using the same inkjet printing device used to print an underlayer. Accordingly, the comments presented above with respect to amended independent claim 1 are equally applicable to amended independent claim 15. For the same reasons discussed above with respect to amended independent claim 1, Applicant respectfully requests withdrawal of the rejection of claim 15 under 35 U.S.C. §103(a).

Dependent claims 16 and 17 depend from amended independent claim 15, which is allowable for the reasons discussed above. Accordingly, dependent claims 16 and 17 are also in allowable condition and withdrawal of the rejection of those claims under 35 U.S.C. §103(a) is respectfully requested.

New claims 18-20 are presented to more fully claim that which the Applicants regard as the invention. New claim 18 specifies that the shape of the identifying indicia of the underlayer is related to the shape of the secure image, and wherein the secure image completely covers the underlayer. As discussed above with respect to dependent claim 3, **none of the prior art shows, teaches, or suggests that the identifying indicia is in any way related to the shape of the image printed over the identifying indicia.** In fact, in the prior art, the watermarks or other identifying indicia are printed independently of a later image, and are therefore impossible to be made related to the later printed image.

Dependent claim 19 specifies that the inkjet printing device for printing the underlayer is the same inkjet printing device for printing the overlayer, while dependent claim 20 specifies that the inkjet printing device for printing the underlayer is different from the inkjet device for printing the overlayer. Allowance of new claims 18-20 is respectfully requested.

Amendment and Response

Applicant: Gopalan Raman

Serial No.: 09/698,644

Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

CONCLUSION

In light of the above, Applicant believes independent claims 1, 10, 15, and 18 and the claims depending therefrom, are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to either Matthew B. McNutt at Telephone No. (512) 231-0531, Facsimile No. (512) 231-0540, or Kevin B. Sullivan at Telephone No. (858) 655-5228, Facsimile No. (858) 655-5859. In addition, all correspondence should continue to be directed to the following address:

Hewlett-Packard Company
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400


Respectfully submitted,

Gopalan Raman,

By his attorneys,

DICKE, BILLIG & CZAJA, PLLC
Fifth Street Towers, Suite 2250
100 South Fifth Street
Minneapolis, MN 55402
Telephone: (612) 573-2000
Facsimile: (612) 573-2005

Date: Nov. 14, 2003
MBM:dmd


Matthew B. McNutt
Reg. No. 39,766

CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Box Non-Fee Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 14th day of November, 2003.

By 
Name: Matthew B. McNutt